

NASA/GSFC		MISSION OPERATIONS & DATA SYSTEMS DIRECTORATE (MO&DSD) CONFIGURATION CHANGE REQUEST (CCR)			
1. CCR NO.		2. DATE	3. PRIORITY	4. CHANGE LEVEL	
CCR-405-ICD-03		June 20, 1997	<input type="checkbox"/> EMERGENCY <input type="checkbox"/> URGENT <input checked="" type="checkbox"/> ROUTINE	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F	
5. TITLE OF CHANGE					
SHO Subheaders 5 and 6 LI Expansion for EDOS/Landsat/Test					
6. DOCUMENT TITLE ICD Between the NCC/FDF and the WSC for the TDRS H, I, J Era					
DOCUMENT NO. 405-TDRS-RP-ICD-001, 8 December 1995					
LIST ALL AFFECTED DOCUMENTS INCLUDING PROCEDURES					
530-NCC-FDF/WSC ICD					
(CONT ON ATTACHMENT)					
7. REASON FOR CHANGE					
To expand the LI Channel ID definition in SHO Subheaders 5 and 6, including specific allocations for EDOS, Landsat, and test support.					
(CONT ON ATTACHMENT)					
8. DESCRIPTION OF CHANGE					
Pages 9-9, 9-11, AB-1, and AB-2					
(CONT ON ATTACHMENT)					
9. IMPACT					
SYSTEM		ORGANIZATIONAL			
YES NO		YES NO		YES NO	
<input type="checkbox"/> SCHEDULE		<input type="checkbox"/> RELIABILITY/MAINTAIN- ABILITY/SAFETY		<input type="checkbox"/> 501 <input type="checkbox"/> 530	
<input type="checkbox"/> BUDGET		<input type="checkbox"/> SPACE SEGMENT		<input type="checkbox"/> 502 <input type="checkbox"/> 540	
<input type="checkbox"/> FACILITIES		<input type="checkbox"/> LOGISTICS		<input type="checkbox"/> 503 <input type="checkbox"/> 550	
<input type="checkbox"/> TESTING		<input type="checkbox"/> DOCUMENTATION		<input type="checkbox"/> 510 <input type="checkbox"/> 560	
<input type="checkbox"/> TRAINING		<input type="checkbox"/> HARDWARE		<input type="checkbox"/> 520 <input type="checkbox"/> OTHER	
<input type="checkbox"/> SPECIFICATIONS		<input type="checkbox"/> SOFTWARE		Code 405	
<input type="checkbox"/> CONTRACTOR SUPPORT		<input type="checkbox"/> OTHER			
<input checked="" type="checkbox"/> INTERFACES					
<input type="checkbox"/> WEIGHT					
10. COMMENTS					
STel ANALYST		SIGNATURE		DATE	
HARDWARE ENGINEER					
OPERATIONS REPRESENTATIVE					
SYSTEMS ENGINEER					
I AND T MANAGER					
CONCURRENCE:					
CODE 285					
DATE					
11. BOARD ACTION					
12. DIRECTION/ACTION REQUIRED					
<input type="checkbox"/> APPROVED <input type="checkbox"/> WITHDRAWN		<input type="checkbox"/> ECP			
<input type="checkbox"/> DISAPPROVED <input type="checkbox"/> DEFERRED UNTIL		<input type="checkbox"/> WAIVER			
		<input type="checkbox"/> TECH DIRECTION			
		<input type="checkbox"/> PUBLISH DOCUMENT			
		<input type="checkbox"/> C.O. LETTER			
		<input type="checkbox"/> CONTRACT MOD			
		<input type="checkbox"/> PUBLISH DCN			
		<input type="checkbox"/> OTHER			
13. ORIGINATOR		14. SEGMENT MANAGER'S APPROVAL		CODE	
D. Littmann x7643					
SIGNATURE		SIGNATURE		DATE	
15. CCB APPROVAL		16. CCR IMPLEMENTED			
SIGNATURE		ATR SIGNATURE		DATE	
		CCB SIGNATURE		DATE	

<u># of Bytes</u>	<u>Data Item</u>
	DIS Disable Time
2	Year
3	Day
2	Hours
2	Minutes
2	Seconds
1	Data Source (the following parameters in Subheader No. 5 are for control of the designated Demultiplexer (DEMUX)). 1 = GSFC Demux 2 = JSC Demux 3 = Local Interface (LI)
1	<u>LI***</u> <u>0 = Spare (Unused)</u> <u>1-4 = Nominal LI Channel I.D.</u> <u>5-9 = Spare (Unused)</u> <u>A-D = EDOS EBnet Channel ID</u> <u>E-F = Landsat-7 Channel ID</u> <u>G-X = Spare (Unused)</u> <u>Y-Z = LI Test Channel ID</u> <u>a-z = Spare (Unused) 0 = not LI</u>
2	Port Address* 4 Hexadecimal characters
1	Blocked/Unblocked Data* 1 = Blocked 2 = Unblocked
1	Clamped/Unclamped Clock* 1 = Clamped 0 = Unclamped
1	Clock Tracking* ** 1 = Yes 0 = No

* Applicable to MDM only.

** The clock tracking parameter for DEMUX configuration shall not be used for Shuttle Forward Data or for any End-to-End Test user return data.

*** A zero (0) shall be specified if the data source is not LI.

<u># of Bytes</u>	<u>Data Item</u>
2	Hours
2	Minutes
2	Seconds
1	Data Destination
	1 = LI
	2 = HDRM
	3 = MDM
	4 = Record Only
	5 = Television (TV) - Shuttle Only
	6 = Analog Data - Shuttle Only
1	LI*
	0 = <u>McMurdo TDRS Relay System (MTRS) High Rate Channel ID</u>
	1-4 = <u>Nominal LR Channel I.D.</u>
	100 BPS ≤ Data Rate ≤ 10 MBPS (<u>Low Rate</u>)
	5-8 = <u>Nominal HR Channel I.D.</u>
	10 MBPS < Data Rate ≤ 300 MBPS (<u>High Rate</u>)
	0 = not LI
	If Data rate is ≥ 150 MBPS, 5-8 specifies the service, i.e., no Q-Channel specified.
	9 = <u>Spare (Unused)</u>
	A-F = <u>EDOS EBnet Low Rate Channel ID</u>
	G-H = <u>EDOS GSIF High Rate Channel ID</u>
	I-J = <u>Landsat-7 Low Rate Channel ID</u>
	K-R = <u>Spare (Unused)</u>
	S-V = <u>LI Test Low Rate Channel ID</u>
	W-Z = <u>LI Test High Rate Channel ID</u>
	a-z = <u>Spare (Unused)</u>
1	HDRM
	0 = Not used
	1-4 Input Port Number
	If non-zero and SHO Class = 6, this is the HDRM input port for data which is received on the same High Data Rate Demultiplexer (HDRD) port. When SHO Class = 6 the SHO will contain only the SHO Header and Subheader 6. The same HDRM input ports at STGT and WSGTU shall not be simultaneously scheduled. A SHO Class 6 shall be sent to WSGTU whenever the HDRM at STGT is scheduled.

* A zero (0) shall be specified if the data source is not LI.

* ~~Applicable to MDM only.~~

Abbreviations and Acronyms

ACS	Attitude Control System
ADPE	Automatic Data Processing Equipment
ASCII	American Standard Code for Information Interchange
BED	Block Error Detector
BER	Bit Error Rate
BPSK	Binary Phase Shift Keying
BR	Bit Rate
CAB	Circuit Assurance Block
CCB	Configuration Control Board
CCR	Configuration Change Request
CDCN	Control and Display Computer Network
CMD	Command
CTFS	Common Time and Frequency System
DCN	Document Change Notice
DEMUX	Demultiplexer
DG	Data Group
DIS	Data Interface System
DQM	Data Quality Monitor
<u>Ebnet</u>	<u>EOSDIS Backbone Network Communications</u>
<u>EDOS</u>	<u>EOS Data and Operations System</u>
EET	End-to-End Test
EIRP	Effective Isotropic Radiated Power
<u>EOS</u>	<u>Earth Observing System</u>
<u>EOSDIS</u>	<u>EOS Data and Information System</u>
EOT	End of Track
<u>ETRO</u>	<u>Estimated Time of Return to Operation</u>
EXEC	Executive

ETRO	Estimated Time of Return to Operation
FDF	Flight Dynamics Facility
GMT	Greenwich Mean Time
GSFC	Goddard Space Flight Center
<u>GSIF</u>	<u>Ground Station Interface Facility</u>
G/T	Gain to Noise Temperature Ratio
GT	Ground Terminal
HDR	High Data Rate
HDRD	High Data Rate Demultiplexer
HDRM	High Data Rate Multiplexer
HDRR	High Data Rate Receiver
HRBS	High Rate Black Switch
HSM	Hot Standby Mode
I	In-Phase (channel)
ICD	Interface Control Document
IF	Intermediate Frequency
IIRV	Improved Interrange Vector
IR	Integrated Receiver
JPL	Jet Propulsion Laboratory
JSC	Johnson Space Center
KaSA	Ka-Band Single Access
KSA	Ku-Band Single Access
KaSAF	Ka-Band Single Access Forward
KSAF	Ku-Band Single Access Forward
KaSAR	Ka-Band Single Access Return
Kbps	Kilobits Per Second
<u>KSA</u>	<u>Ku-Band Single Access</u>
<u>KSAF</u>	<u>Ku-Band Single Access Forward</u>
KSAR	Ku-Band Single Access Return
KSH	Ku-Band Shuttle